

# ABSTRACT OF THE INVENTION

Disclosed is a method of modifying cell structure which includes:  
increasing the intracellular concentration of biliverdin reductase, or a fragment or  
5 variant thereof, in a mammalian cell under conditions effective to modify the structure  
of the mammalian cell. Also disclosed are methods of performing *in vivo* tissue  
remodeling in a mammal and repairing a damaged organ or organ system, both of  
which include delivering biliverdin reductase, or fragments or variants thereof, to one  
or more cells present at a site of tissue remodeling in a mammal, wherein said  
10 delivering increases the intracellular concentration of biliverdin reductase, or  
fragments or variants thereof, under conditions effective to modify the structure of the  
one or more cells at the site of tissue remodeling, thereby remodeling the tissue  
containing the one or more cells.

Sub  
A2

10045545-011402